

Remarks/Arguments

Reconsideration of the above-identified application in view of the present amendment is respectfully requested.

By the present amendment, claim 11 has been amended to include the limitation that at least one of crystalline and amorphous particles of incombustible inorganic material are incorporated in at least some of the openings. Support for these limitations can be found in canceled claim 2, which recites the limitation of an incombustible, inorganic material, and page 3, lines 14 of the specification, which recites the limitation of mechanically incorporated.

Claims 11, 3-10, 19-20, and 12 were rejected under 35 USC §103 as being obvious in view of U.S. Patent No. 6,458,724 (hereinafter, “the ‘724 patent”) and U.S. Patent No. 6,140,414 (hereinafter, “the ‘414 patent”).

Claim 11 recites an airbag fabric comprising intersecting warp and weft threads made of at least one of synthetic fibers and filaments and woven at such a density that openings remaining between their intersections yield an at least microporous structure in the fabric. At least one of crystalline and amorphous particles of incombustible inorganic material are mechanically incorporated in at least some of the openings. The fabric has a coating or finish of polymeric material that has been applied after the incorporation of at least one of crystalline and amorphous particles. The coating or finish comprises a silicone. A static

friction at the intersections between the warp and weft threads is present that is at least 5% greater than that of an untreated fabric having the same construction.

Claim 11 is patentable over the '724 patent in view of the '414 patent because the '724 patent in view of the '414 patent do not teach or suggest: (1) manually incorporating at least one of crystalline and amorphous particles of incombustible inorganic material in at least some of the openings of the fabric before applying a coating comprising silicone to the fabric and (2) a static friction at the intersections between the warp and weft threads being present that is at least 5% greater than that of an untreated fabric having the same construction.

1. The '724 patent in view of the '414 patent do not teach or suggest manually incorporating at least one of crystalline and amorphous particles of incombustible inorganic material in at least some of the openings of the fabric before applying a coating comprising silicone to the fabric.

The '414, as noted in the Office Action, teach a curable silicone aqueous surface coating composition for an airbag base fabric. The coating composition comprises an emulsion of polysiloxane having 50-95% by weight of aqueous colloidal silica dispersion containing 10-50% by weight colloidal silica particles. (Abstract).

The '414 patent does not teach or suggest mechanically incorporating particles of incombustible, inorganic material into at least some of the openings of the fabric before applying a coating comprising silicone. The '414 patent teaches using a curable organopoysiloxane surface-coating composition, which includes a curing catalyst, such as metal salts of organic acids to promote curing or cross-linking of the prepolymer composition

after the composition is coated over the airbag. (Column 6, lines 39-48; column 7, lines 44 to 51). If the '414 patent taught, which is not the case, to incorporate silica particles into the openings remaining between intersecting warp and weft threads, these particles would not be of incombustible, inorganic material, but, rather particles of a cured polysiloxane or cured silicone, i.e., particles of combustible, organic material, rather than particles of incombustible, inorganic material. It is clear to those skilled in the art that the filler particles of the '414 patent's coating composition after polymerization and curing will not be present as distinct or discreet inorganic silica particles, but rather these silica particles will be embedded and immobilized within a polymer silicone matrix. The silica particles will not be mechanically incorporated in the openings, but would be hidden within the polymer matrix which in turn would fill the openings between the intersecting warp and weft threads.

Additionally, in contrast to the Examiner's statement in item 4 of the Office Action that the coating liquid infiltrates the texture of the cloth and therefore coats in-between the interstices of the fabric (column 7), the '414 patent teaches at column 7, lines 52-63, the silicone coating composition requires an increased viscosity before coating a substrate cloth in order to ensure good performance of the airbag cloth because:

"when the viscosity of the coating liquid is inadequately low, the coating liquid applied to the surface of the substrate cloth infiltrates the texture of the substrate cloth throughout and is cured in situ so that the surface-coated base cloth would have unduly high stiffness not suitable as a material of airbags along with problems relative to the gas-sealing behavior and flame retardancy of the base cloth..."

Thus, the '414 patent teaches not to infiltrate the texture of the substrate cloth in order to avoid unduly high stiffness after curing the silicone.

The '724 patent teaches a multi-layered composite comprising multiple coatings and fabric layers used to form an airbag. The fabric layer is coated with a first, second, and third coating layer. (Column 2, lines 63-67). The first coating layer comprises a polyurethane, the second coating layer comprises a polysiloxane or polyurethane, and the third coating layer comprises an elastomeric urethane. (Column 3, lines 2-13).

The '724 patent, like the '414 patent, does not teach or suggest mechanically incorporating particles of incombustible, inorganic material into at least some of the openings of the fabric before applying a coating comprising a silicone coating layer. The '724 patent teaches only applying a polysiloxane coating to the fabric after a polyurethane coating is applied. Thus, neither the '414 patent nor the '724 patent teach or suggest mechanically incorporating particles of incombustible, inorganic material into at least some of the openings of the fabric before applying a coating comprising silicone

Assuming arguendo that the '414 did teach the mechanically incorporating incombustible inorganic particles into the openings of the fabric, the combined teachings of the '414 patent and the '724 patent would still not teach the invention recited in claim 11 because the '724 patent teaches applying a polysiloxane layer on the fabric only after applying a polyurethane layer. Therefore inorganic, incombustible particles if provided in the

polysiloxane coating would not be incorporated into openings of the fabric. The '724 patent teaches that the fabric is first provided with a polyurethane coating to adhesively bond the filaments of the fabric so as to not uncomb or unravel. (Column 5, lines 50-54). After the first coating is applied, a second coating comprising a polysiloxane can be applied to the first coating. Assuming as the Examiner argues that one skilled in the art would have found it obvious to use the polysiloxane composite of the '414 patent (siloxane coating including silica) as one of coatings of the '724 patent, the '724 patent would still teach first providing a polyurethane coating over the fabric which prevent the coating of the '414 patent from being provided in the openings of the fabric.

2. The '724 patent in view of the '414 patent do not teach or suggest a static friction at the intersections between the warp and weft threads being present that is at least 5% greater than that of an untreated fabric having the same construction.

Both the '724 patent and '414 patent do not teach or suggest that the fabric includes a static friction at the intersections between the warp and weft threads being present that is at least 5% greater than that of an untreated fabric having the same construction.

The Office Action argues with regard to this limitation that the Applicant claims at least 5%, which also includes the end point of zero meaning no static friction at all. The Office Action further argues that applying any form of coating would cause some sort of friction.

The Applicant respectfully traverses this argument. The limitation of at least 5% does not include zero or amounts less than 5%. What is claimed is a static friction that is at least 5% greater than that of an untreated fabric of the same construction, that is with the same fibers having the same number of warp and weft threads and with the same number of openings and microporous structure.

Moreover, the Office Action provides no basis in fact or technical reasoning to support its conclusion that the coatings of the '414 patent and the '724 patent increase the static friction and do so in an amount of at least about 5%. Absent some support by evidence or technical reasoning, the Examiner's statement with respect to static friction is at best mere speculation. It is well settled that speculation is not sufficient for establishing a prima facie case of obviousness. *Ex parte Yamamoto*, 57 USPQ2d 1383, 1384 (Bd. Pat. App. & Inter. 2001), *citing In re Warner*, 154 USPQ 173, 178 (CCPA 1967). Thus, without some basis in fact or technical reasoning to support the Examiners statement, the Office Action has failed to establish prima facie case of obviousness and withdrawal of the rejection is respectfully request.

Claims 2-9 and 19-20 depend from claim 11 are therefore allowable because of the aforementioned deficiencies in the rejection with respect to claim 11 and because the specific limitations recited in claims 2-9 and 19-20.

Claim 12 recites an airbag fabric that comprises intersecting warp and weft threads made of at least one of synthetic fibers and filaments and woven at such a density that

openings remaining between their intersections yield an at least microporous structure in the fabric. At least one of crystalline and amorphous particles are incorporated in at least some of the openings. A static friction at the intersections between the warp and weft threads is present that is at least 5% greater than that of an untreated fabric having the same construction.

Claim 12 is patentable over the '724 patent in view of the '414 patent because the '724 patent in view of the '414 patent do not teach or suggest a static friction at the intersections between the warp and weft threads being present that is at least 5% greater than that of an untreated fabric having the same construction.

Both the '724 patent and '414 patent do not teach or suggest that the fabric includes a static friction at the intersections between the warp and weft threads being present that is at least 5% greater than that of an untreated fabric having the same construction.

The Office Action argues with regard to this limitation that Applicant claims at least 5%, which also includes the end point of zero meaning no static friction at all. The Office Action further argues that applying any form of coating would cause some sort of friction.

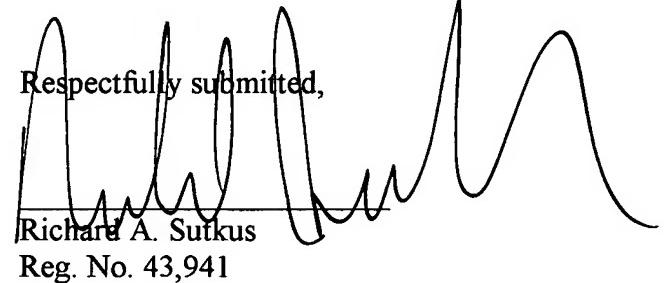
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Moreover, the Office Action provides no basis in fact or technical reasoning to support its conclusion that the coatings of the '414 patent and the '724 patent increase the static friction and do so in an amount of at least about 5%. Absent some support by evidence or technical reasoning, the Examiner's statement with respect to static friction is at best mere speculation. It is well settled that speculation is not sufficient for establishing a prima facie case of obviousness. *Ex parte Yamamoto*, 57 USPQ2d 1383, 1384 (Bd. Pat. App. & Inter. 2001), *citing In re Warner*, 154 USPQ 173, 178 (CCPA 1967). Thus, without some basis in fact or technical reasoning to support the Examiners statement, the Office Action has failed to establish prima facie case of obviousness and withdrawal of the rejection is respectfully requested.

In view of the foregoing, it is respectfully submitted that the above-identified application is in condition for allowance, and allowance of the above-identified application is respectfully requested.

Please charge any deficiency or credit any overpayment in the fees for this amendment
to our Deposit Account No. 20-0090.

Respectfully submitted,
Richard A. Sutkus
Reg. No. 43,941

A handwritten signature in black ink, appearing to read "Richard A. Sutkus", is written over a series of stylized, overlapping bell-shaped curves that form a decorative background for the signature line.

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